

TELEGRAPH STATISTICS

OF THE

DOMINION OF CANADA

FOR THE

YEAR ENDED JUNE 30

1913

A. W. CAMPBELL,

Deputy Minister of the Department of Railways and Canals.

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OTTAWA

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1914

[No. 20F—1914.]

THE UNIVERSITY OF CHICAGO

EDWARD G. BRENNAN

THE UNIVERSITY OF CHICAGO

1912

THE UNIVERSITY OF CHICAGO

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THE UNIVERSITY OF CHICAGO

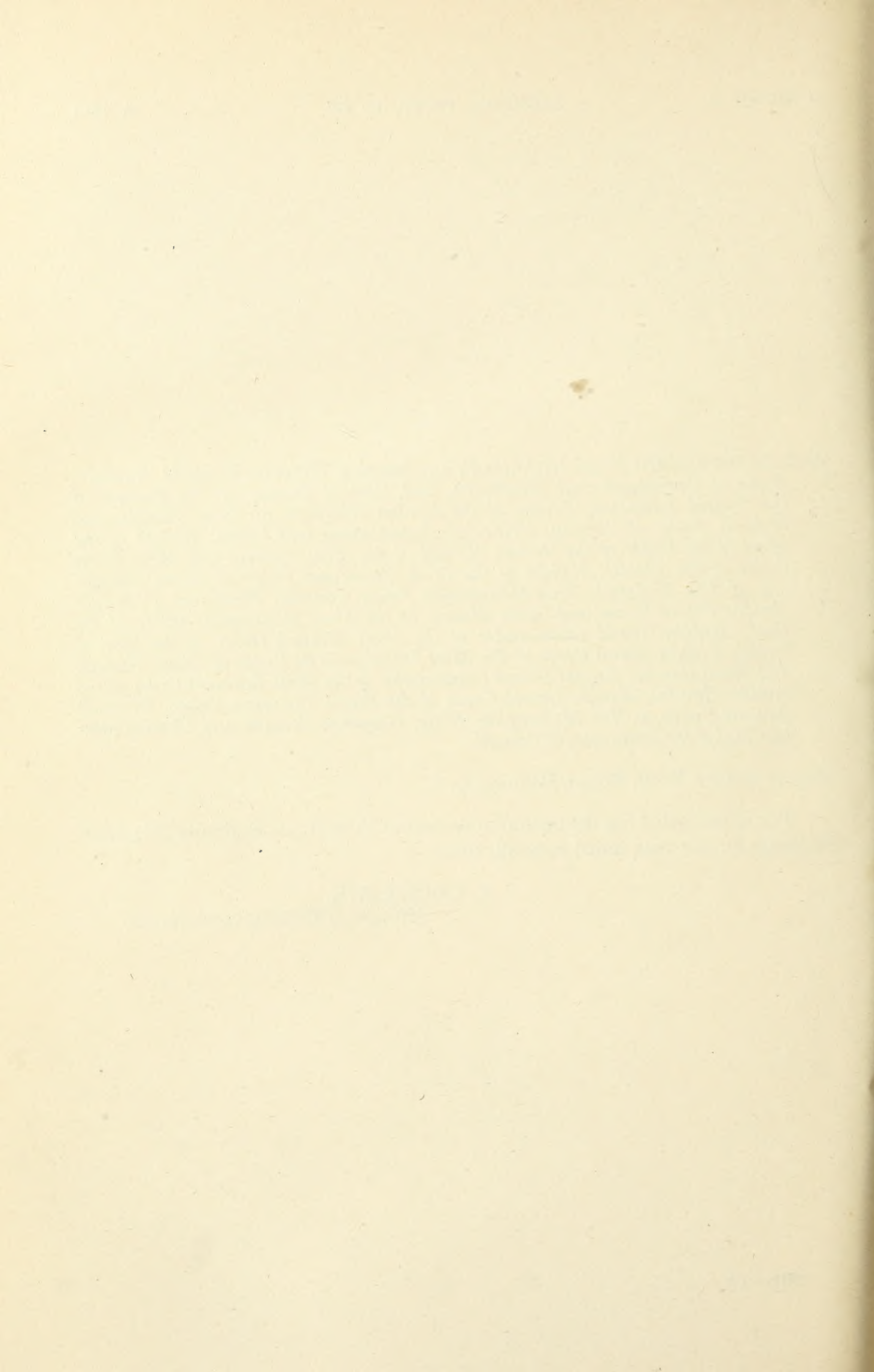
1912

To Field Marshal His Royal Highness Prince ARTHUR WILLIAM PATRICK ALBERT, Duke of Connaught and Strathearn, and Earl of Sussex, in the Peerage of the United Kingdom, Prince of the United Kingdom of Great Britain and Ireland, Duke of Saxony, Prince of Saxe-Coburg and Gotha; Knight of the Most Noble Order of the Garter; Knight of the Most Ancient and Most Noble Order of the Thistle; Knight of the Most Illustrious Order of Saint Patrick; one of His Majesty's Most Honourable Privy Council; First and Principal Knight Grand Cross and Great Master of the Most Honourable Order of the Bath; Knight Grand Commander of the Most Exalted Order of the Star of India; Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George; Knight Grand Commander of the Most Eminent Order of the Indian Empire; Knight Grand Cross of the Royal Victorian Order; Personal Aide-de-Camp to His Majesty the King; Governor General and Commander-in-Chief of the Dominion of Canada.

MAY IT PLEASE YOUR ROYAL HIGHNESS,—

The undersigned has the honour to present to Your Royal Highness Telegraph Statistics for the year ended June 30, 1913.

F. COCHRANE,
Minister of Railways and Canals.



To the Honourable F. COCHRANE,
Minister of Railways and Canals.

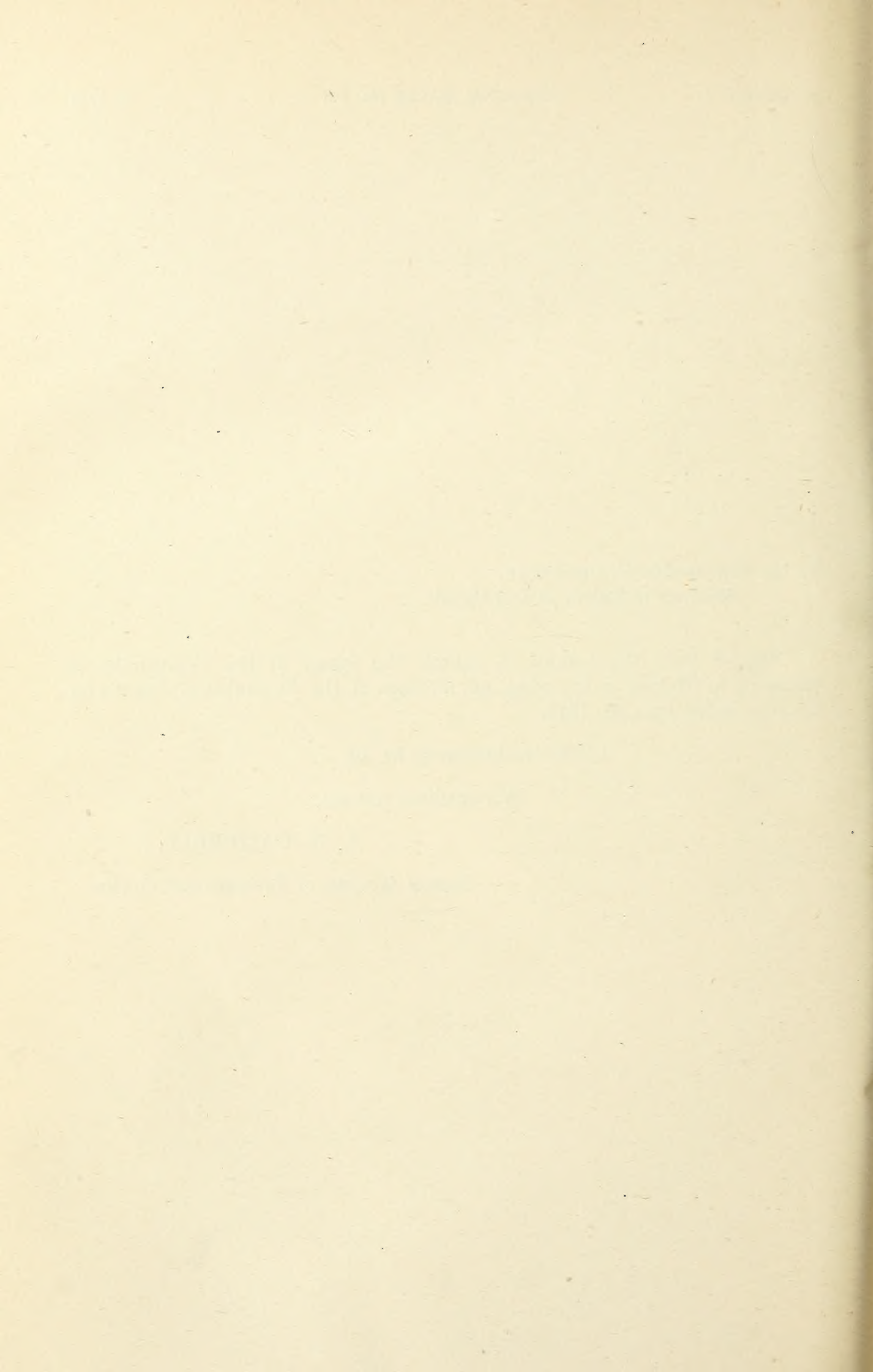
SIR,—I have the honour to submit the report of the Comptroller of Statistics, in relation to the telegraph interests of the Dominion of Canada for the year ended June 30, 1913.

I have the honour to be, sir,

Your obedient servant,

A. W. CAMPBELL,

Deputy Minister of Railways and Canals.



OFFICE OF THE COMPTROLLER OF STATISTICS
OTTAWA, December 20, 1913

A. W. CAMBPELL, ESQ., C.E.,
Deputy Minister of Railways and Canals.

SIR,—I have the honour to submit herewith Telegraph Statistics for the year ended June 30, 1913.

Reports were received from the various organizations conducting telegraph operations in Canada. These reports relate only to the commercial aspects of the telegraph business. No account is taken of telegraph systems connected wholly with railways. The schedules prescribed required information with regard to:—

Organization
Capitalization.
Cost of Property and Equipment.
Revenue from Operation.
Operating Expenses.
Balance Sheet.
Pole Mileage.
Wire Mileage.
Employees.
Messages.

Without increasing the number of schedules, it is proposed for the purpose of the next report to make elaborations suggested by the experience of the past two years.

The cable companies from which reports were received were as follows:—

Anglo-American Telegraph Company.
American Telegraph and Cable Company.
Commercial Cable Company.
Direct United States Cable Company.
Halifax and Bermudas Cable Company.
Pacific Cable Board.

The Companies operating on land were:—

Anglo-American Telegraph Company.
Canadian Northern Telegraph Company.
Canadian Pacific Railway Company's Telegraph.
Dominion Government Telegraph Service.
Grand Trunk Pacific Telegraph Company.
Great North Western Telegraph Company of Canada.
North American Telegraph Company.
Temiskaming and Northern Ontario Railway Commission.
Western Union Telegraph Company.

The Marconi Wireless Telegraph Company occupies a separate class, in that it operates on neither land nor sea.

HISTORICAL DATA.

Inasmuch as this is only the second report prepared in relation to the telegraph interests of Canada, it is deemed expedient to repeat some of the historical data which were published in 1912. The facts given will be of service in affording a clear view of the telegraph situation to which the statistical matter has reference:—

THE MONTREAL TELEGRAPH COMPANY.

As early as 1846, T. D. Harris, a hardware merchant of Toronto, and a few public spirited Canadian gentlemen associated themselves into a company to secure the construction of a line of Morse telegraph between Toronto and Niagara, via Hamilton and St. Catharines. The money needed was easily raised, and when at last the company was fully organized it was named 'The Toronto, Hamilton, Niagara & St. Catharines Electro Magnetic Telegraph Company,' with a capital of \$16,000, and for which a suitable charter was procured. The line was built by Samuel Porter, long and favourably known in United States telegraphic circles. It will be remembered that a telegraph line between Washington and Baltimore was first opened for public business in the United States on April 1, 1845. Up to that date the line had been worked by Prof. Morse and his associates as a curiosity. Mr. Porter suspended a wire across the Niagara River to connect the wire at Queenston with Lewiston, N.Y., and built for this first Canadian Telegraph Company an honest and well appointed line. After its completion he served for a time as its Superintendent, and was later on succeeded by Percy R. Marling. Meanwhile, on the American side, David Kissock constructed a line connecting the Canadian Company's wires with Buffalo, N. Y., with William Kissock as Manager at Buffalo, and in 1852 both properties were purchased by the Montreal Telegraph Company, which had meanwhile been organized for the purpose of connecting telegraphically all the chief centres of Canadian commerce.

The Montreal Telegraph Company was organized in Montreal in 1847, with a capital of \$60,000, and in March of that year Mr. O. S. Wood was invited to become its Superintendent. The company was meanwhile incorporated under a liberal charter granted by the Provincial legislature, and Andrew Shaw, a gentleman of enterprise and energy, was elected its first President. About the same time H. P. Dwight and James Dakers, the latter afterwards Secretary of the company, entered its service.

The appointment of Mr. Wood was in every way fortunate for the company. He had studied under Prof. Morse and was his first pupil. He had been connected with his brother-in-law, Mr. Ezra Cornell (who later on founded Cornell University) in the construction of American lines, and had all the practical information and experience needed in his new position. In actual work, also as an operator, in the construction and operation of the experimental lines at Washington and New York, and in erecting the first business line between Buffalo and New York in the fall of 1845, he had become familiar with all the necessities of an efficient telegraphic structure. Mr. Wood was also a man of the highest character and thoroughly comprehended his mission.

The construction of the line, which was at first limited to the territory between Quebec and Toronto, was assigned to Livingston & Wells, the well known Express men of New York. In this also the Montreal Telegraph Company was fortunate, inasmuch as it assured them the faithful fulfilment by experienced builders of an important service. The result of these favorable

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facts was that the line of the Montreal Telegraph Company, when completed, was the first on this continent which united in it from the very start the conditions of success. The internal arrangements were also similarly complete. The instruments with which the offices were furnished were, of course, of the Morse apparatus, and were constructed by S.W. Chubbuck & Son, of Utica, N.Y., from models approved by Mr. Wood, and were of the finest workmanship, strong and durable. The reception of messages by sound had not yet been inaugurated, and was indeed still regarded with much apprehension. Recording registers were, therefore, supplied for every office. During the eighteen years of Mr. Wood's wise and prudent administration this state of thorough efficiency was preserved and gave the line a character for promptitude and reliability which established the Company as one of the most vigorous and useful of the social and commercial organizations of the country. At the close of 1847 the Montreal Telegraph Company worked 540 miles of wire, had nine offices, employed thirty five persons and had sent in all, 33,000 messages.

In 1847, Frederick Gisborne, a gentleman who early interested himself in the subject of Atlantic cable communication, started 'The British North American Electric Association.' It was designed under this organization to erect a telegraph line to connect Quebec with the lower Provinces and finally with the Atlantic coast. It was built, however, only as far as River Du Loup, 112 miles below Quebec, and there rested for some years. It was afterwards extended by John A. Torney to Woodstock, N. B. and there formed a connection with the American Telegraph Company, which, by that time had leased the lines of the Eastern Provinces. The capital stock of this Company, or Association, was \$25,000. A second organization bearing the same corporate name constructed a line from Quebec to Montreal, which was, however soon after, amalgamated with the Eastern Company. These enterprises proved so utterly unproductive that the lines East of Quebec became the property of the Montreal Telegraph Company, without charge, and the Quebec and Montreal section was purchased by the same company at one-third of its cost.

About the same time, Hon. Malcolm Cameron interested himself in the construction of a line from Hamilton to London: but after a doubtful existence of eighteen months, it was abandoned and soon disappeared.

In 1849 The Montreal and Troy Telegraph Company was organized, and built a line from Montreal to the Canadian frontier and thence, via Whitehall to Troy, under what was called 'The Troy and Canada Junction Telegraph Company.' These lines were built and the Company organized by Ezra and Alonzo B. Cornell, and were worked for several years as one line in connection with the Montreal Telegraph Company. Mr. A. B. Cornell, who was a son of Ezra Cornell, during the first two years after their construction, was the Manager of the Montreal office. Mr. A. B. Cornell later on became Governor of New York State. The section of this line north of Whitehall, N.Y., became, after a few years, under a compact with the leading American lines, a part of the property of the Montreal Telegraph Company. In like manner the lines of the Vermont and Boston Telegraph Company from Rouses Point to Montreal and Odgensburg, N.Y. were acquired first by lease and then by purchase.

During all this period a number of minor companies were started here and there throughout the Provinces, all of which about as speedily expired. One of these which showed a more promising vitality was a company organized in 1850 by Joseph Aumond, and others, to construct a line of telegraph from Montreal to Bytown, now Ottawa, a distance of 125 miles. But life went roughly with it and after a few hard fought years it was purchased by the Montreal Telegraph Company at a merely nominal price. A new impetus was given to telegraph line

building in the Provinces by the passage in 1852 by the Canadian Legislature of a general telegraph law. This led to the organization of 'The Grand Trunk Telegraph Company' (this concern had no connection with the Grand Trunk Railway) under which a line was built from Buffalo to Quebec and which promised a lively opposition. This Company, however like its predecessors, dragged along during a few years when its lines were purchased by the Montreal Telegraph Company at a cost of \$11,000.

Before the Grand Trunk Telegraph Company became extinct, Mr. Weller, the proprietor of a line of stage coaches, which at that time ran between Toronto and Montreal, became financially interested in the concern and thinking to improve its fortunes had the name of the company changed to 'The International Telegraph Company;' but it did no better under this title and the end came as described. With marvellous vitality, however, the purchase of this line was followed by the building of another over the same ground under what was called 'The Provincial Telegraph Company,' an organization brought into being as a branch of the 'United States Telegraph Company,' which at that period was spreading rapidly and widely through the United States. This also survived a few years, when the United States Telegraph Company becoming, in 1866, absorbed by the Western Union Telegraph Company and the 'Provincial' sold out to the Montreal Telegraph Company.

Sir Hugh Allan, who had early interested himself in the fortunes of the Montreal Telegraph Company, became its President in 1851. It is no exaggeration to say that no one man made himself more thoroughly felt in the realm of enterprise in all its most public and prominent features in the history of Canada than did Sir Hugh Allan. He early selected the ocean steamship, the rail and the telegraph, as the three great leading channels in which to throw the weight of an unusually energetic character.

Immediately on assuming the Presidency, Sir Hugh Allan, in concert with Mr. Wood, projected important extensions of the lines of the Company and urged the necessity and the propriety of extending the telegraph to the most remote points of the country. Lines to the frontiers of population were built. Places far remote from railroads and from the centres of commerce were made accessible, and at the close of 1875 the Company had in operation 20,000 miles of wire, 1,400 offices and 2,000 employees. The number of messages transmitted during the year preceding, in addition to millions of words in press dispatches, was 2,000,000. Under an enlightened policy and by the enlargement of the capital to \$2,000,000, to provide the means of communication wherever needed, the lines of the Montreal Telegraph Company, instead of their operation being limited to Toronto and Quebec as in 1847, were extended from Sackville, N.B. to Detroit, Mich., from Montreal to Portland, Me., from Montreal to Oswego, N.Y., from Toronto to Buffalo, N.Y., and to the most northerly boundaries of Ontario.

In 1865 Mr. O. S. Wood, after a long and honourable service, resigned, when Mr. James Dakers was appointed Superintendent of the Eastern, and Mr. H. P. Dwight, Superintendent of the Western Division of the Company's Territory. The Montreal Telegraph Company could not have had a more faithful officer. There is nothing more marked in the history of the Montreal Telegraph Company than the high and faithful character of its executive officers. Still another example of this is to be found in Mr. H. P. Dwight, who had by great prudence, and ability and by rare and intelligent vigour proved himself worthy of the highest trusts. To great fidelity Mr. Dwight added a clear and steady judgment which gave him much weight in the Executive management, and which led to perfect confidence in his administrative prudence and sagacity.

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The Montreal Telegraph Company built its own offices at Quebec, Montreal, Ottawa and Toronto.

One of the most important measures carried out by the liberal policy of the Montreal Telegraph Company has been in the arrangement of its tariff. In doing this it has been, of course, much aided by its exceptional freedom from the drain caused by inferior construction, which in so many cases has periled the existence and maimed the service of so many companies. By absolutely refusing, also, all inducements to increase its stock, except in the acquisition and representation of actual property, it kept itself powerful for the most radical and aggressive measures. For some years prior to 1871 it had carefully and steadily reduced the basis of its tariffs as its facilities multiplied and its business increased. Thus, while the lines were extended to new regions, additional wires added to the trunk lines, new offices opened to meet the public convenience and the capital enlarged to cover the cost of new property, the tariff was correspondingly lowered without impairing the average profits of the business. And when in 1871, the Company found that the outside structure was measurably complete, that all available territory where population or commerce seemed to demand the telegraph, was covered, that the Company was utterly free from debt, it ordered on June 1st, 1871, the establishment of a uniform tariff of twenty five cents for ten words and one cent for each added word throughout its entire territory from Sarnia to Sackville. The only exception to this was an order to limit the charge on messages to places under twelve miles from any office to fifteen cents.

At the time of amalgamation with the Great North Western Telegraph Company, in 1881, the Montreal Telegraph Company owned and operated 20,479 miles of wire, had 1,507 offices, 2,625 instruments and numbered in its employ 70 female and 2,267 male employees.

The organization of the Company was as follows:—

President: SIR HUGH ALLAN.

Secretary: JAMES DAKERS.

Treasurer: CHARLES BOURNE.

Board of Directors.

George W. Campbell, M.D.
Peter Redpath,

Andrew Allan,
Hon. E. G. Penny,

General Eastern Superintendent—James Dakers, Montreal,
General Western Superintendent—H. P. Dwight, Toronto,
District Superintendents, N. W. Bethune, Ottawa; E. Pope, Quebec.

Sir Hugh Allan, the pioneer and mainstay of the Company in its early history, died in Edinburgh, Scotland, while on a visit to that city on the 9th of December, 1882. Mr. James Dakers, the faithful and capable Secretary and Superintendent, died in Montreal on the 15th of April, 1887, and Mr. O. S. Wood, the Company's first Superintendent, full of years and honours, passed away at the great age of ninety two at his home near New York City in 1906.

THE DOMINION TELEGRAPH COMPANY.

Mr. Selah Reeves, who had had considerable experience in starting telegraphic enterprises in the United States, began operations to found the Dominion

Telegraph Company in 1868. The organization of the Company under that title took place in incipient form in that year under the general laws of Canada relative to Telegraph Companies. It was organized chiefly on subscriptions said to have been obtained in Clifton, Ontario. Mr. Reeves received the contract for the construction of the lines; but after a few hundred miles had been built the work proved to be so unsatisfactory that the stockholders, at a meeting held in Quebec in 1869, cancelled the contract. By that time a few men of energy who had been drawn into the enterprise determined to endeavour to save the property from ruin and make the company a success. Under their management the contract for the further extension of the lines was given to E. Colby, of Oswego, N.Y., under a fair contract, and the wires were gradually extended until all points of importance between Buffalo, N.Y., Detroit and Quebec were connected. The Company was not thoroughly organized until January 11, 1870, when its annual meeting was held at Toronto. At that time the line was still very limited and incomplete, but had been freed from embarrassments and had been commended to public appreciation by the election of the following officers: Hon. J. McMurich, President; J. I. McKenzie, Vice-President; Jas. Michie, Treasurer; Hon. J. H. Cameron, Consulting Counsel; Hon. M. C. Cameron, Solicitor and H. John Colles, Secretary. The Board of Directors comprised Hon. J. McMurich A. R. McMaster. L. Moffatt, J. Michie, Hon. W. Cayley, J. I. McKenzie, A. Copp, S. Nelson and T. N. Gibbs.

The Company had been organized under the General Telegraph laws of the Dominion; but in 1871 the passage of a special act of incorporation was secured to clear away the debris of the former. In 1874 a further act was passed which granted the same rights and privileges enjoyed in the Provinces of Ontario and Quebec to the Eastern Provinces. The Company's lines terminated at Oswego, Buffalo, Detroit and Quebec and embraced 3,660 miles of line, 7,162 miles of wire and 366 offices. Its connections in the United States were with the Atlantic and Pacific and Vermont International Telegraph Companies. The Dominion Telegraph Company also had a contract for a term of years with the direct United States Cable Company, which secured it the European business of that Company for Canada. The Company finally extended its lines through Canadian territory from the cable landing at Tor Bay, Nova Scotia, via Halifax to Quebec by way of Pictou, New Glasgow, Guysboro, Cape Canso and Antigonish, to complete which \$300,000 in bonds were issued.

The capital of the Dominion Telegraph Company was now \$700,000. It had a pole mileage of 5,142, wire mileage 11,501, number of offices 608 and, at the time of amalgamation with the Great North Western Telegraph Company, the Board of Directors was as follows:—

Directors.—Hon. T. N. Gibbs, President; John I. McKenzie, Vice-President; Jas. Michie, Treasurer; Thos. Swinyard, Managing Director, and Hon. Wm. Cayley, W. F. McMaster, A. Copp and Lawrence Olyphant. *Local Directors.*—M. H. Gault, Montreal; and A. Joseph, Quebec. *Executive Officers.*—Thos. Swinyard, General Manager, Toronto; and Fred. Roper, Secretary, Toronto. *Divisional Superintendents.*—H. Neilson, Toronto; C. R. Hosmer, Montreal; T. C. Elwood, Toronto, and D. R. McQuarrie, Halifax.

THE GREAT NORTH WESTERN TELEGRAPH COMPANY OF CANADA.

The Great North-Western Telegraph Company of Canada was incorporated by act of Parliament of Canada, May 7th, 1880, with a capital of \$400,000. The provisional directors were:—Hon. John Norquay, Hon. Alex. Morris, Hon. A. G. Bannatyne, Hon. C. P. Brown, J. S. Aikins, E. P. Leacock, H. S. Donaldson,

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C. MacDonald, J. Anderson, G. A. Kirkpatrick, T. Swinyard, Hon. Dr. Schultz, F. W. Strange, J. G. Haggart, A. Markham, and James J. Foy.

In 1881 the stock of the Company was purchased by a new propriety who, on the 30th of August, 1881, elected directors as follows:—Erastus Wiman, Hon. Wm. McDougall, Adam Brown, W. Gooderham, D. H. Bates, James Hedley, O. S. Wood, Richard Fuller, and A. S. Irving.

Mr. Erastus Wiman, of New York, was elected President, and Mr. O. S. Wood, of Montreal, Vice-President. Mr. Harvey P. Dwight, who had for many years been Western Superintendent of the Montreal Telegraph Company, was appointed General Manager; Frederick Roper, Secretary of the Dominion Telegraph Company, was chosen Secretary and Auditor, and Mr. Arthur Cox, Treasurer.

Acting under the powers conferred by the charter of the Company, a lease was effected of both the lines of the Dominion Telegraph Company and the Montreal Telegraph Company, and the Great North-Western Telegraph Company assumed full charge and control of both. The former consisted of over five thousand miles of poles and nearly twelve thousand miles of wire, and the latter of about seventeen thousand five hundred miles of poles and thirty-two thousand miles of wire. These extended systems were merged under one management and in friendly alliance with the Western Union Telegraph Company.

The President of the Great North Western Telegraph Company, Mr. Erastus Wiman, and to whom its organization was chiefly due, was born in Cooksville, Ontario, in 1834.

Mr. Wiman's interest in the telegraph owed its origin to an acquaintance with Mr. Dwight, and it was through Mr. Wiman's active influence and labour that the Dominion and Montreal Telegraph Companies became finally organized into the Great North-Western Telegraph Company and which led to his election as a director of the Western Union Telegraph Company. It had been the design of the original incorporators of the Great North-Western Telegraph Company to establish the headquarters of the Company at Winnipeg, Manitoba; but this idea was soon abandoned. The natural headquarters were at Toronto, and were placed there. At the close of 1881 the records of the Company showed:—Miles of poles, 22,507; Miles of wire, 44,058; Offices, 1,992; Employees, (Males, 2,817, Females, 210), 3,207; and Messages, 2,422,298.

The uniform tariff over the Company's lines between offices in the Provinces of Ontario, Quebec and New Brunswick during the day is 25c for ten words and at night 25c. for twenty five words. Between offices not over twelve miles apart, 15c for ten words day or night alike. Press rates 25c for one hundred words.

At the formation of the Great-North Western Telegraph Company, the Superintendents were as follows:—Angus Grant, Montreal; N. W. Bethune, Ottawa; Ben. B. Toye, Toronto; Edwin Pope, Quebec; Warren Dow, Plattsburg, N.Y. and H. McDougall, Winnipeg; R. F. Easson, Supt. of Reports, Toronto; W. S. Battin, Assistant to General Manager, Toronto; and J. Poustie Supt. of Construction and Maintenance, Montreal.

The lines in Canada, especially those belonging to the Montreal Telegraph Company, have always been noted for excellence and solidity of construction.

4 GEORGE V., A. 1914

Galvanized wire imported from England was first used on the lines between Montreal and Quebec, and nothing inferior has ever been employed. Heavy copper wire is now used on some of the longest and most important circuits, and its offices are equipped with all the latest and most modern telegraphic inventions and appliances. This whole system is now under the closest alliance with the Western Union Telegraph Company and from its business centres, such as Toronto, Hamilton, Ottawa, Montreal, Quebec and Winnipeg, direct wires connect with the chief cities of the United States.

Mr. Erastus Wiman died at St. George, Staten Island, New York, on February 9, 1904. He had resigned from the Presidency of the Great North-Western Telegraph Company some years prior to his death, and Mr. H. P. Dwight succeeded him to this office with the title of General Manager and President. In October 1903, Mr. Dwight resigned from the General Managership of the Company but retained the Presidency, which office he held up to the time of his death, which occurred at Toronto on July 4th, 1912.

On the retirement of Mr. Dwight from the General Managership of the Company in October, 1903, Mr. Isaac McMichael was appointed in his place, with headquarters at Toronto. Mr. McMichael was a Canadian by birth, having been born in Brantford, Ontario, but an American by training.

On the death of Mr. McMichael, in 1911, Mr. Geo. D. Perry, who had been an official of the Company since its re-organization in 1881, was promoted from the position of Secretary-Treasurer to that of General Manager. The Executive officials of the Company are now:—Adam Brown, Vice-President; Geo. D. Perry, General Manager; A. C. McConnell, Secretary and Auditor and D. E. Henry, Treasurer.

THE CANADIAN PACIFIC.

The Canadian Pacific operates a commercial telegraph service under its corporate rights as a railway. Organization took place on 17th February, 1881. The control of telegraph interests is not separate from the control of the railway, and the officers are in each case the same. The Company has the largest wire mileage in the Dominion, and carries on operations in all the provinces, with the single exception of Prince Edward Island. It has not absorbed the interests of any other telegraph organization: but has proceeded from the start on an independent and self-contained basis. Information with respect to the property and business of the Company is given in the body of this report.

The capital liability of the telegraph interest is wrapped up in the stocks and bonds of the railway. The gross revenue from operation was \$3,286,508.65 in 1913, against which there were operating expenses of \$1,691,953.38. The net balance was handed over to the railway Company.

During the original construction of the Canadian Pacific Railway on the Lake Superior Division and Western Lines, a small amount of telegraph business was handled for the general public. On January 1st, 1886, a Telegraph Department was formed with Mr. C. R. Hosmer, as manager, and in September of the same year the department opened up for general commercial business from Montreal to the Pacific Coast. Almost from the start it was evident that the department would prove a success.

Up to December, 1899, the official staff consisted of the Manager, four Superintendents, Chief Electrician and Assistant and four Superintendents of Construction; but the business had grown to such an extent that it was deemed

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necessary to have the following official staff:—Manager of Telegraphs, Mr. James Kent, who succeeded Mr. Hosmer in December, 1889; Assistant Manager of Telegraphs, General Superintendent of Western Lines, eight superintendents and twenty-one Assistants or Inspectors.

The plant has increased from 4,964 miles of poles, 16,790 miles of wire and 435 offices in 1887, to 13,646 miles of poles and cable, 70,546 miles of wire and 1,424 offices in 1913. The traffic increased from 567,840 messages sent in 1887, to 4,731,717 in 1913. In 1887 the lines were extended eastward to the City of Quebec, in 1888 to St. John, N.B., and in 1889 to Halifax and Canso, N.S., where they connect with the deep sea cables for Europe. In 1893 the lines were further extended eastward to Sydney and Louisburg in Cape Breton. Extensions were also made throughout other parts of Canada over all new branches of the Canadian Pacific Railway, and lines acquired by that company as well as over some roads belonging to other companies, and the Canadian Pacific Railway telegraph lines now reach every point of any importance throughout the Dominion of Canada either by its own wires or by direct connection with the Government lines.

The Department has direct connection and working arrangements with the Commercial Cable Co. for Europe and beyond; with the Halifax and Bermudas Co. for Bermuda and the West Indies; with the Pacific Cable Board for Australia, New Zealand, Fanning Island, etc., and through the Postal Telegraph-Cable Co., with the Commercial Pacific Co. for Japan and China; with the United States and Hayti and the New York Havana Co. and via Galveston for the West Indies and South America.

Connection is made with the Postal Telegraph-Cable Company at Sumas, B.C., North Portal, Sask., Emerson, Man., Sault Ste. Marie, Mich., Detroit, Mich., Niagara Falls, Ont., Morristown, N. Y., Richford, Vt., and Mattawamkeag, Me., through wires being worked between cities in Canada and leading cities in the United States. The executive of the department realized that in order to give the best service it was necessary to work through wires between the leading points, and at first for all such wires put up No. 6 B W. gauge iron wire. This wire was found satisfactory for distances up to 1,400 miles (with 2 automatic repeaters) when there were only a small number of wires on poles; but the traffic has increased to such an extent that it was found advisable to work wires through from Montreal to Vancouver, and in order to do so it was necessary to use copper. Copper wire weighing 300 pounds per mile was therefore erected for this purpose and the time saved in the handling of traffic between Eastern Canada and the Pacific Coast was so noticeable that additional copper wires were put up. For some years back all new circuits of any importance have been constructed of copper. At the end of 1911, 42% of all the wire in service was copper, and 20% heavy iron wire, the remaining 38% being for local circuits.

In 1888 one wire (worked duplex) between Montreal and Winnipeg was sufficient to carry all the traffic between Eastern Canada and points west of the Great Lakes, as well as a considerable amount of traffic between the Eastern States and the Pacific Coast States. At present there are two wires worked between Montreal and Vancouver, three from Toronto to Winnipeg, four from Montreal to Winnipeg, three from Winnipeg to Vancouver, all worked duplex which doubles the capacity of each wire; besides which there are other wires for shorter distances. The Telegraph Department has offices in the Company's own buildings at Quebec, Montreal, Fort William, Moosejaw, Calgary, Lethbridge, Revelstoke and Vancouver and there are now being erected new office

buildings in Toronto, Sudbury, while buildings are projected in Winnipeg and Edmonton. All the larger offices are equipped with either motor-generators or storage battery.

WESTERN UNION.

The Western Union Telegraph Company was incorporated by the Legislature of the State of New York in April, 1851, and represents at the present time the consolidation of a considerable number of telegraph interests in the United States and Canada.

The official organization of the Company on June 30 last was as follows:—President, Theodore N. Vail; Vice Presidents, Newcomb Carlton, J. B. VanEvery, G. W. E. Atkins, Belvidere Brooks, and Thomas F. Clark. Directors, Oliver Ames, Boston, Mass.; Union E. Bethel, Vincent Astor, New York City; Henry A. Bishop, Bridgeport, Conn.; Robert C. Clowry, Henry P. Davison, Chauncey M. Depew, James Stillman, Harry B. Thayer, Theodore N. Vail, Henry Walters and John I. Waterbury, New York City; Robert Winsor, Boston, Mass.; Harris C. Fahnestock, Henry M. Flagler, Robert M. Galloway, Edwin Gould, George J. Gould, Edward J. Hall and Henry S. Howe, New York City; John J. Mitchell, Chicago, Ill.; Thomas H. Hubbard, Edward T. Jeffrey, Charles Lanier, Lewis Cass Ledyard, Robert S. Lovatt, William H. Moore, J. Morgan, Jacob H. Schiff, Joseph J. Slocum, Newcombe Carlton, and James Stillman, New York City.

Secretary, William H. Baker; Treasurer, A. R. Brewer; General Counsel, Rush Taggart; General Attorney, George H. Fearons; Comptroller, E. Y. Gallaher; Auditor, H. W. Ladd; General Manager, B. Brooks. The official address of the Company is 195 Broadway, New York City.

The control of the Company is vested in the stockholders. Each share of stock represents one vote.

The capital of the Company consists of 1,000,000 shares of common stock of the par value of \$100 each. The total par value of stock outstanding on June 30 was \$99,817,100. The annual dividend is at the rate of three per cent, and amounted to \$2,992,166.25 for 1913.

The funded debt of the Company on June 30 was \$32,602,000, on which interest is paid at the rate of $4\frac{1}{2}$ and 5 per cent, according to the stipulation in the bond. The Company also holds the bonds of a number of leased companies, liability on which it has assumed.

The cost of real property and equipment up to June 30, 1913, was \$136,125,768.

It has not been practicable to separate the capital liability of the Company nor the value of real property and equipment as between Canada and the United States.

The operations of the Company in Canada are chiefly in the provinces of Nova Scotia, New Brunswick and Prince Edward Island. It has minor interests in Quebec and British Columbia.

The gross revenue of the Company from Canadian business in 1913 was \$568,150.85, and operating expenses amounted to \$387,590.88.

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THE NORTH AMERICAN.

The North American Telegraph Company operates a comparatively small mileage in the district about Kingston, Ontario, and is controlled by the Bell Telephone Company. Its officers, with the exception of the Secretary-Manager, are the officers of the Bell Telephone Company. It was organized in 1886, with a capital of \$200,000, all of which was used for property and equipment.

In 1913 there was a balance as between gross revenue and operating expenses of \$938.94.

THE CANADIAN NORTHERN.

Although the Canadian Northern Telegraph Company has a separate corporate existence, it is directly identified with the Canadian Northern Railway Company. The affairs of the two companies are practically identical, and the head offices are at Toronto. The capital of the Telegraph Company consists of \$500,000 in common stock, on which a dividend has not been declared, and \$800,000 of first mortgage bonds, on which the rate of interest is five per cent. Organization took place on June 30, 1902.

The operations of the Company follow more or less closely the railway line, and are distributed over the provinces of Ontario, Manitoba, Saskatchewan and Alberta.

The gross revenue in 1913 was \$276,739.70, and the operating expenses were \$141,742.68. The report of the Company does not show what disposition was made of net earnings.

THE GRAND TRUNK PACIFIC.

This Company was organized on November 8, 1906, with a capitalization of \$100,000 in the form of common stock, of which only 12 shares had been issued up to June 30. The control is vested absolutely in the Grand Trunk Pacific Railway Company, which provided and owns all the real property and equipment. The officers are the officers of the railway company, and headquarters are at Montreal.

The Grand Trunk Pacific Telegraph Company is being operated 'under construction,' as is the railway, and net earnings are applied for the reduction of the cost of construction. The balance thus dealt with in 1913 was \$9,890.67, out of gross earnings of \$72,126.80.

The Company has a considerable wire mileage in the provinces of Ontario, Manitoba, Saskatchewan, Alberta and British Columbia; but its operations are almost wholly along the line of the railway.

THE T. & N. O. TELEGRAPH.

The Temiskaming & Northern Ontario Railway, which is owned and operated by the Government of Ontario, provides a commercial telegraph service along its right of way in the Northern sections of the province. The business done, while relatively small, is of material consequence to the district in which telegraph facilities are thus provided. The net earnings for 1913 were \$23,802.39, out of gross earnings of \$36,297.73. The headquarters of the T. & N. O. Railway are at Toronto. Mr. A. J. McGee is the Secretary of the Commission.

GOVERNMENT TELEGRAPH SERVICE.

The Dominion Government first established a telegraph service in 1879. Mr. F. N. Gisborne was made Superintendent. The primary purpose was to aid navigation, and to establish telegraphic connection with remote points along the Gulf of St. Lawrence and Atlantic coast. In the Northwest Territories lines were run across the prairies for the purposes of the Mounted Police. The opening up of the Yukon in 1896 led to the construction of several thousands of miles of line into the new mining country. For all the purposes of the Government Telegraph Service 9,860 miles of wire have been strung on 9,336 miles of poles. In addition there are 277 miles of submarine cable. The cost of the system up to June 30 was \$2,211,950.

It was not in any direct sense intended that the Government Telegraph Service should be used for commercial purposes; but it has been made use of in greater degree year by year. The gross revenue in 1913 was \$215,526.11, against which, however, was an operating cost of \$491,550.80.

Mr. D. H. Keeley, of the Public Works Department, Ottawa, is the Superintendent of the Government Telegraph Service.

Facts with regard to pole and wire mileage, and the distribution by provinces will be found in the proper table in the body of this report.

CABLE COMPANIES.

Six Cable companies have a terminus in Canada—five on the Atlantic coast and one on the Pacific. They are all controlled by foreign interests, and several of them merely land at Canso, in Nova Scotia, because of geographical considerations. Reports have been received from five of these cable companies, and three of them relate wholly to capitalization. These three are under the control by lease or other arrangement, of the Western Union Telegraph Company, and the results of operation are involved in the statistics of that Company.

THE PACIFIC CABLE.

The Pacific cable was constructed, and is owned and operated by a partnership of Governments—Great Britain, Australia, Canada and New Zealand. It lies between in Bamfield, British Columbia, and Australia, with a bifurcation to New Zealand. Canada is not only one of the owners, but to Canada belongs the distinction of having projected the Pacific Cable and urged its construction upon the Governments which now constitute the owning partnership. It was in 1893 that Sir Mackenzie Bowell, at that time Minister of Trade and Commerce in the Canadian Government, undertook what has been officially described as the Mission to Australia. He was accompanied by Sir Sandford Fleming, who was the originator and persistent advocate of the Pacific Cable. As one of the results of that mission the Colonial Conference of 1894 took place in Ottawa. The construction of a cable between Canada and British Colonies in the South Seas was endorsed by the Conference. Positive action was not taken, however, until 1900, following the Imperial and Colonial Conference of that year, at which Sir William Mulock represented Canada. The Pacific Cable Act was adopted by the Imperial Parliament in 1901, and the laying of the cable began within a year thereafter.

The essential features of the partnership agreement under which the Pacific Cable was constructed and is operated may be briefly stated. The capital

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cost of £2,000,000 was raised by a Board styled in the Act 'The National Debt Commissioners,' the repayment of which is to be by a terminable annuity at the rate of £77,540.18.0—which includes interest at 3 per cent. The first payment was made in 1903 and the last will be due in 1952. This fund, plus whatever deficit may arise from operation, is to be made up annually by the Government partners in the following proportions: Great Britain, five eighteenths; Canada, five eighteenths; Australia, six eighteenths and New Zealand, two eighteenths. The larger share falling upon Australia is due to the fact that at the time of the agreement the Commonwealth had not been formed, and three of the States had each assumed two eighteenths of the obligation. Canada's payment in 1912 was \$43,700 in round figures. The Pacific Cable has been in operation since 1902, and the volume of business has grown steadily. The Board has leased from the Canadian Pacific Railway a land line running from Bamfield, B.C., to Montreal, which has facilitated the transmission of messages between Great Britain and the Antipodes.

THE MARCONI WIRELESS.

The Marconi Wireless Telegraph Company of Canada occupies a field by itself. It can neither be classified with companies which operate a cable, nor, with companies which operate a land line, although its functions partake of the character of both. The Canadian Company was organized in 1903, and was in many respects the pioneer organization in the realm of wireless development. The primary experiments in cross-Atlantic wireless telegraphy were carried on in Canada, the first station having been erected near Glace Bay in Nova Scotia. This experimental work was aided by the Dominion Government, and to that extent distinction attaches to Canada.

The Marconi Wireless Telegraph Company has headquarters at Montreal, and on the 30th June last its officers were:—President—Andrew A. Allan; Vice-President—G. Marconi; Directors—J. N. Greenshields, Robert Bickerdike, Godfrey C. Isaacs, W. D. Birchall, J. H. Lauer, and G. M. Bosworth; Secretary-treasurer—Alex. E. Reoch; General manager—J. H. Lauer. The capitalization of the Company is \$5,000,000.

CAPITAL AND COST.

The capitalization of telegraph companies operating in Canada for the year ended 30th June, 1913, was returned at \$202,468,041.32, of which \$160,342,873.32 was in stocks and \$42,125,168 in funded debt. This total was practically unchanged from 1912.

Capital liability is not attached to the Canadian Pacific, The Temiskaming & Northern Ontario, and the Dominion Government Telegraph Service.

Of the companies having headquarters in Canada, the following made returns respecting capital:—

	Stocks.	Bonds.
	\$	\$
Canadian Northern Telegraph Company	500,000	800,000
Grand Trunk Pacific Telegraph Company	100,000	
Great North Western Telegraph Company	500,000	
Marconi Wireless Telegraph Company	5,000,000	
North American Telegraph Company	200,000	
Total	6,300,000	800,000

The total cost of real property and equipment was returned at \$185,907,-353.75—an increase of \$1,757,676.75 over 1912.

The figures of cost relating to Canadian companies were as follows:—

Canadian Pacific Railway Company.....	\$6,696,421
Dominion Government Telegraph Service.....	2,211,950
North American Telegraph Company.....	51,666
Pacific Cable Board.....	55,000
Temiskaming & Northern Ontario.....	33,035
Total.....	\$9,048,072

The cost of the system operated by the Canadian Pacific Railway is the result of a valuation. The same observation applies to the Dominion Government Telegraph Service. The figures relating to the Pacific Cable Board have reference only to property in Canada. The actual cost of the whole cable system was approximately the capital liability.

REVENUE AND OPERATING EXPENSES.

The total revenue from operation for the year was \$6,095,212.90, representing a gain of \$879,041.98 over 1912.

In the case of the Western Union the figures relating to revenue are in part based upon an arbitrary apportionment. The business of the company is international in character as well as local. The Western Union also operates several of the largest cables which land at Canso in Nova Scotia, and for the business which passes through the Dominion in that way a return is not made. It would seem only proper that some account should be taken of the vast telegraph traffic which is carried on over Canadian territory, although it is actually in transit between Europe and the United States. The situation in this regard is unsatisfactory, and the Western Union Telegraph Company has been definitely notified that hereafter a full report must be made of the statistical facts.

The gross revenue for the year ended 30th June, 1913, as well as for the preceding year, was distributed among the various companies as follows:—

	1912.	1913.
	\$	\$
Canadian Northern Telegraph Company.....	226,445 45	276,739 70
Canadian Pacific Railway Company.....	3,009,767 84	3,286,508 95
Dominion Government Telegraph Service.....	200,330 20	215,526 11
Grand Trunk Pacific Telegraph Company.....	55,392 47	72,126 80
Great North Western Telegraph Company.....	1,161,414 92	1,244,302 67
Halifax & Bermudas Cable Company.....	68,805 00	69,710 00
Marconi Wireless Telegraph Company.....	143,018 00	218,660 00
North American Telegraph Company.....	26,331 42	22,023 49
Pacific Cable Board.....	73,861 40	85,166 60
Temiskaming & Northern Ontario Commission.....	38,932 03	36,297 73
Western Union Telegraph Company.....	354,888 19	568,150 85
Total.....	5,359,188 92	6,095,212 90

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Following were the sources of revenue in 1912 and 1913:—

	1912.	1913.
	\$ cts.	\$ cts.
Local Messages	2,751,490 21	3,187,127 53
Conjoint messages	1,385,586 01	1,400,449 78
Press reports	158,839 88	123,568 89
Market Reports	98,437 70	103,710 58
Cablegrams	484,713 68	682,456 78
Money orders	40,770 61	49,730 08
Leased wires	288,009 44	297,083 40
Miscellaneous	151,339 39	242,085 84
Total	5,359,188 92	6,095,212 90

Operating expenses for 1912 and 1913 were distributed among the various reporting organizations as follows:—

	1912.	1913.
	\$ cts.	\$ cts.
Canadian Northern Telegraph Company	108,143 11	141,742 68
Canadian Pacific Railway Company	1,435,944 28	1,691,953 38
Dominion Government Telegraph Service	505,731 73	491,550 80
Grand Trunk Pacific Telegraph Company	48,264 54	62,236 13
Great North Western Telegraph Company	839,602 95	911,884 98
Halifax & Bermudas Cable Company	26,140 00	25,695 00
Marconi Wireless Telegraph Company	148,485 00	218,597 00
North American Telegraph Company	13,983 16	21,084 55
Pacific Cable Board	122,708 13	69,649 69
Temiskaming & Northern Ontario Commission	11,990 25	12,495 34
Western Union Telegraph Company	266,828 81	387,590 88
Total	3,527,821 96	4,034,480 43

The difference between gross revenue and operating expenses for the year was \$2,060,732.47.

The ratio of operating expenses to gross revenue was 66.84, as compared with 65.83 in 1912.

The details of operating expenses, in accordance with the requirements of the official schedule, in 1912 and 1913, were as follows:—

	1912.	1913.
	\$ cts.	\$ cts.
Salaries and Wages	2,583,887 50	2,884,590 20
Stationery and printing	31,060 14	29,442 65
Line and equipment	372,344 25	402,149 33
Buildings	229,046 58	241,486 31
Legal expenses	2,177 40	3,918 59
Insurance	3,960 37	2,448 24
Commissions	143,070 03	141,854 06
Taxes	23,665 25	20,539 05
Miscellaneous	138,610 44	308,072 00
Total	3,527,821 96	4,034,480 43

EQUIPMENT.

The schedule with regard to equipment was left unchanged from 1912, when for the first time, telegraph organizations were called upon to make a statistical return. It covered merely pole and wire mileage. It is proposed to make an elaboration for the next year, so as to bring in other items of physical equipment as to which information is desirable.

The facts with regard to pole and wire mileage in 1912 and 1913 are shown in the following table:—

Province.	Pole Mileage.		Wire Mileage.	
	1912.	1913.	1912.	1913.
Nova Scotia.....	2,828	2,907.25	9,878	9,412.49
New Brunswick.....	1,867	2,251.25	8,376	7,297.34
Quebec.....	7,515	7,035.25	24,249	25,242.20
Ontario.....	10,514	11,166.90	58,207	47,682.55
Manitoba.....	3,803	3,808.00	18,184	13,697.10
Saskatchewan.....	5,382	5,863.65	21,257	19,499.80
Alberta.....	2,895	3,476.05	14,491	16,193.05
British Columbia.....	3,467	5,838.14	10,571	13,192.46
Yukon.....	2,498	688.00	2,713	688.00
Newfoundland	14	14.00	14	14.00
	40,785	43,048.49	167,939	152,918.99

The absence of Prince Edward Island from the foregoing list is due to the fact that the wire mileage operated in that province is also part of the Government Railway System.

There is a considerable reduction of wire mileage for 1913, due entirely to the improper exaggeration of the total for 1912. One of the principal operating companies made a mistake in respect of multiple wire—that is wire over which duplex and quadruplex systems are operated—by counting one mile of quadruplex as four miles. All multiple wires should be reckoned on the basis of single wire mileage.

The wire mileage in 1912 and 1913 was distributed among the following classes:—

	Miles.	Miles.
	1912	1913.
Galvanized.....	116,974	122,168
Copper—overhead...	50,100	29,417
Copper underground	254	698
Copper submarine...	689	636
Multiple.....	36,218	39,794

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PUBLIC SERVICE.

The number of land messages transmitted in 1913 was 11,176,753, as compared with 9,252,540 in 1912.

Cablegrams numbered 877,534, as against 768,559 in the preceding year. To make a proper comparison of cablegrams the number of words should be given, and an effort will be made to have the schedule placed on that basis.

EMPLOYEES.

The number of employees reported was 6,006, as compared with 4,828 in 1912. Of the number for 1913, there were 2,885 classified as operators, of whom 2,693 were male and 192 female.

The salaries and wages bill for the year was \$2,962,159.13, as against \$2,703,032.09 in 1912.

The total of salaries and wages for 1913 was equal to 73.4 per cent. of operating expenses, as compared with 76.7 in 1912.

STATISTICAL TABLES.

Detailed information with regard to the various telegraph organizations operating in Canada will be found in tables following the foregoing introductory observations.

I have the honour to be, Sir,

Your obedient servant.

J. L. PAYNE,
Comptroller of Statistics.

TABLE 1.—Capital Liability, Cost, Gross Revenue and Operating Expenses.

Name of Company.	Address.	Capital Stock.	Funded Debt.	Cost of Real Property and Equipment.	Revenue from Operation.	Operating Expenses.	Net Operating Revenue.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Anglo-American Telegraph Co., Ltd.	London, Eng.	34,066,666 66		34,066,666 66			
American Telegraph & Cable Co.	New York.	14,000,000 00					
Canadian Northern Telegraph Co.	Toronto.	500,000 00	800,000 00		276,739 70	141,742 68	134,997 02
Canadian Pacific Railway Co.	Montreal.			6,696,421 40	3,286,508 95	1,691,953 38	1,594,555 57
Direct United States Cable Co., Ltd.	London, Eng.	5,909,106 66		5,909,106 66			
Dominion Government Telegraph Service.	Ottawa.			2,211,950 00	215,526 11	491,550 80	
Grand Trunk Pacific Telegraph Co.	Montreal.	100,000 00			72,126 80	62,236 13	9,890 67
Great North Western Telegraph Co. of Canada.	Toronto.	500,000 00			1,214,302 67	911,884 98	332,417 69
Halifax & Bermudas Cable Co., Ltd.	London, Eng.	250,000 00		757,740 00	69,710 00	25,695 00	41,015 00
Marconi Wireless Telegraph Co. of Canada, Ltd.	Montreal.	5,000,000 00			218,660 00	218,597 00	63 00
North American Telegraph Co.	Kingston, Ont.	200,000 00		51,666 47	22,023 49	21,084 55	938 94
Pacific Cable Board.	London, Eng.		8,723,168 00	55,000 00	85,166 60	69,649 69	16,516 91
Temiskaming & Northern Ontario Ry. Commission.	Toronto.			33,034 49	36,297 73	12,495 34	23,802 39
Western Union Telegraph Co.	New York.	99,817,100 00	32,602,000 00	136,125,768 07	568,150 85	387,590 88	180,559 97
Total.		160,342,873 32	42,125,168 00	185,907,353 75	6,095 212 90	4,034,480 43	2,337,757 16

*Includes earnings on a large portion of line not yet bonded.

TABLE 2.—Gross Revenue and the Sources Thereof.

Name of Company.	Local Messages.		Conjoint Messages.		Press Reports.		Market Reports.		Cablegrams.		Money Orders.		Leased Wires.		Miscellaneous.	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Canadian Northern Telegraph Co.....	263,622	24					7,222	91	3,486	92			2,407	63		
Canadian Pacific Railway Co	2,168,739	45	586,655	83	46,358	38	4,372	48	205,767	12	23,467	84	230,968	35	20,179	50
Dominion Government Telegraph Service.....			215,526	11												
Grand Trunk Pacific Telegraph Co.....	66,633	93	3,256	76											2,236	11
Great North Western Telegraph Co. of Canada.....	290,302	64	567,237	24	73,827	97	92,115	19	72,136	14	14,166	86	58,707	83	75,808	80
Halifax & Bermudas Cable Co., Ltd.....					1,920	00			58,970	00					8,820	00
Marconi Wireless Telegraph Co. of Canada, Ltd.....	152,300	00							144,950	00					121,410	00
North American Telegraph Co.....	2,126	08	14,422	76					341	16	118	90	4,999	59	15	00
Pacific Cable Board.....									85,166	60						
Temiskaming & Northern Ontario Ry. Commission.....	13,793	95	22,551	08					152	70						
Western Union Telegraph Co.	329,609	26			1,462	54			211,486	14	11,976	48			13,616	43
Total.....	3,187,127	55	1,409,449	78	123,568	89	103,710	58	682,456	78	49,730	08	297,083	40	242,085	84

*Included in Conjoint. †Ship messages. ‡Transatlantic Marconigrams. **Includes subsidies. ††Included in local messages.

TABLE 3.—Operating Expenses.

Name of Company.	Salaries. \$ cts.	Stationery and Printing. \$ cts.	Main- tenance of Line and Equipment. \$ cts.	Main- tenance of Buildings, etc. \$ cts.	Legal Expenses. \$ cts.	Insurance. \$ cts.	Commis- sions. \$ cts.	Taxes. \$ cts.	Mis- cellaneous. \$ cts.
Canadian Northern Telegraph Co.	105,993 31	5,736 39	62 25				15,742 50		14,208 23
Canadian Pacific Railway Co.	1,354,042 12		115,677 23	‡222,234 03					
Dominion Government Telegraph Service	410,000 00		81,550 80						
Grand Trunk Pacific Telegraph Co.	13,352 09	1,844 90	37,618 65	1,570 16			6,748 20	149 43	952 70
Great North Western Telegraph Co. of Canada	492,070 28	19,020 49	162,074 71	1,927 75	3,915 59	2,066 29	106,025 54	18,098 27	106,686 06
Halifax & Bermudas Cable Co., Ltd.	15,000 00	685 00	‡560 00			125 00		‡1,355 00	7,970 00
Marconi Wireless Telegraph Co. of Canada, Ltd.	145,060 00								73,537 00
North American Telegraph Co.	4,499 96	66 51	1,295 61	95 00	3 00	256 95	6,914 90	729 21	7,223 41
Pacific Cable Board	59,194 22	485 47		635 51				207 14	9,127 35
Temiskaming & Northern Ontario Ry. Com.	2,387 34	375 00	3,310 08				6,422 92		
Western Union Telegraph Co.	282,990 88	1,208 89		15,023 86					\$88,367 25
Total	2,884,590 20	29,422 65	402,149 33	241,486 31	3,918 59	2,448 24	141,854 06	20,539 05	308,072 00

*Including Maintenance of buildings. †Includes Rent and lighting. ‡Expenses of offices.
§Includes \$59,301.11 paid other lines Refunded and uncollected, and \$10,240 delivery charges.

TABLE 4.—Pole Mileage, and Wire Mileage by Classes.

Name of Company.	Address.	POLE MILEAGE.		Galvanized	WIRE MILEAGE.			Multiple.
		Operated by Company.	Operated by Another Company.		Copper Wire.		Submarine.	
					Overhead	Under-ground.		
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	
Canadian Northern Telegraph Co.....	Toronto..	5,013.10		16,343.50				
Canadian Pacific Railway Co	Montreal.	12,826.00	820.00	45,821.00	24,122.00	148.00	155.00	\$36,233.00
Dominion Government Telegraph Service	Ottawa.	9,335.50		9,514.00	346.00		277.00	
Grand Trunk Pacific Telegraph Co	Montreal..	2,474.00		5,874.75	2,908.50			
Great North Western Telegraph Co. of Canada	Toronto..	9,409.00		27,101.00	2,036.00	250.00	131.00	3,340.00
North American Telegraph Co..	Kingston, Ont....	44.00		783.50				
Temiskaming & Northern Ontario Ry. Com....	Toronto.	297.00		862.00				
Western Union Telegraph Co.	New York	2,829.89		15,868.01	4.77		172.96	1220.51
Total...		42,228.49	820.00	122,167.76	29,417.27	698.00	635.96	39,793.51
†Aerial Cable.	†Submarine Cable.	†Conductor Mileage.		§Not included in wire mileage.				

TABLE 5.—Messages, Employees and Remuneration.

Name of Company.	Address.	Number of Land Messages.	Number of Cable-grams.	NUMBER OF OPERATORS.		Number of Other Officers and Employees.	Salaries and Wages.
				Male.	Female.		
Canadian Northern Telegraph Co.....	Toronto.....	554,393.	1,970	40	6	127	\$ 105,993 31
Canadian Pacific Railway Co.....	Montreal.....	4,731,717	364,431	540	99	1,341	1,341,471 45
Dominion Government Telegraph Service.....	Ottawa.....	383,545				714	410,000 00
Grand Trunk Pacific Telegraph Co.....	Montreal.....	144,171		140	3	43	49,079 15
Great North Western Telegraph Co. of Canada....	Toronto.....	4,225 219	301,117	1,579	53	372	546,382 82
Halifax and Bermudas Cable Co. Ltd.....	London, Eng.....						15,000 00
Marconi Wireless Telegraph Co. of Canada, Ltd	Montreal....	156,308	110,203	140	1	81	145,000 00
North American Telegraph Co.....	Kingston, Ont....	91,669	1,689	15	20	5	1,599 96
Pacific Cable Board.....	London, Eng....			37		17	59,194 22
Temiskaming & Northern Ontario Ry. Com.....	Toronto.....	152,409	1,087	25		2	2,387 34
Western Union Telegraph Co.....	New York.....	737,322	91,007	147	10	419	282,990 88
Total.....		11,176,753	877,534	2,693	192	3,121	2,962,159 13

TABLE 6.—Pole Mileage by Provinces.

Name of Company.	Nova Scotia.	New Brunswick.	Prince Edward Island.	Quebec.	Ontario.	Manitoba.	Saskatch- ewan.	Alberta.	British Columbia.	Yukon.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Canadian Northern Telegraph Co.					847.40	1,824.00	1,884.40	457.30		
Canadian Pacific Railway Co.	560.00	724.00		1,356.00	4,100.00	1,611.00	2,289.00	1,434.00	1,563.00	
Dominion Government Telegraph Service.....	799.00	78.25	†14	2,124.75	28.50		861.00	893.00	3,846.00	688.00
Grand Trunk Pacific Telegraph Co.					364.00	303.00	829.25	688.75	289.00	
Great North Western Telegraph Co. of Canada.....		455.00		3,408.00	5,476.00	70.00				
North American Telegraph Co.....					44.00					
Temiskaming & Northern Ontario Ry. Com.....					297.00					
Western Union Telegraph Co.	1,548.25	995.00		146.50					140.14	
Total.....	2,907.25	2,251.25	†14	7,035.25	11,166.90	3,808.00	5,863.65	3,476.05	5,838.14	688.00

43 miles in State of Minnesota. †In Newfoundland.

TABLE 7.—Wire Mileage by Provinces.

Name of Company.	Nova Scotia.	New Brunswick.	Prince Edward Island.	Quebec.	Ontario.	Manitoba.	Saskatch- ewan.	Alberta.	British Columbia.	Yukon.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Canadian Northern Telegraph Co.				2,570.30	6,208.10	5,771.30	1,793.80			
Canadian Pacific Railway Co.	1,875.00	1,705.00		9,103.00	23,755.00	5,576.00	10,221.00	10,831.00	7,480.00	
Dominion Government Telegraph Service.	894.50	99.25	14	2,369.00	45.75		948.00	912.50	4,166.00	688.00
Grand Trunk Pacific Telegraph Co.					1,128.00	1,254.00	2,559.50	2,655.75	1,186.00	
Great North Western Telegraph Co. of Canada.		457.00		9,864.00	18,538.00	659.00				
North American Telegraph Co.					783.50					
Temiskaming & Northern Ontario Ry. Com.				862.00						
Western Union Telegraph Co.	6,642.99	5,036.09		3,906.20					360.46	
Total.	9,412.49	7,297.34	14	25,242.20	47,682.55	13,697.10	19,499.80	16,193.05	13,192.46	688.00

261 miles in State of Minnesota. †In Newfoundland.

